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EXAMINER

NGUYEN, KEVIN M

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Please find below and/or attached an Office communication concerning this application or proceeding.

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**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Application Number: 09/911,673
Filing Date: July 24, 2001
Appellant(s): ENDO ET AL.

MAILED

MAY 31 2007

Technology Center 2600

Douglas Holtz
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 2/23/2007 appealing from the Office action mailed 10/4/2006.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

No amendment after final has been filed.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

6,845,277	MICHELET ET AL.	1-2005
6,295,002	FUKUDA	9-2001
6050717	KOSUGI ET AL.	4-2000

5991085

RALLISON ET AL.

11-1999

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

1. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Michelet et al (US 6,845,277) hereinafter Michelet in view of Fukuda (US 6,295,002).
2. As to claim 6, Michelet teaches a display system [see Fig. 1] comprising:
 - a host apparatus [10, 22] having an image input interface [20];
 - a display apparatus [21] which is operated by supply of at least one of a video signal [a graphics channel] and power [at least one of a power supply 34 via bus 18 and bus 19] from said host apparatus [see col. 4, lines 16-18];
 - a communication interface [buses 18 and 20] for communicating data between said host apparatus and said display apparatus [see col. 2, lines 40-46];
 - a storing section for storing on-screen display information [a display 21 provides on screen display function ...for displaying text and graphics on the video screen, col. 5, lines 47-55];
 - an information superimposing section [OSD decoder 54, Fig. 5] for superimposing said received on-screen display information of the video signal, wherein the host-side communication section [10, 22] transmits the video control [62, 63] having the on-screen display information superimposed thereon, the display-side communication section [52] receives the transmitted signal, and the display apparatus [60] displays and image of the on-screen display information [see col. 9, lines 10-18].

Accordingly, Michelet teaches all of the claimed limitation, except wherein said display apparatus comprises a storing section for storing power consumption data, a display-side communication-section for transmitting said stored power consumption data and said on-screen display information; wherein said host apparatus comprises: a host-side communication section for receiving said power consumption data transmitted from said display apparatus and said on-screen display information; a power control section for entirely performing power control of said display system based on said power consumption data received from said host-side communication section.

However, Fukuda teaches wherein said display apparatus [51] comprises
a storing section for storing power consumption data [RAM 62c],
a display-side communication-section [61] for transmitting said stored power consumption data and said on-screen display information;
wherein said host apparatus [3] comprises:

a host-side communication section [44] for receiving said power consumption data transmitted from said display apparatus and said on-screen display information;

a power control section [controller section 1] for entirely performing power control of said display system based on said power consumption data received from said host-side communication section [see col. 6, lines 6-14].

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to implement the battery-powered data (corresponding to the power

consumption data) has been established bidirectional communication between the display section (5) and control section (1) as taught by Fukuda for the intended use of the display system of Michelet, because this would reduce the consumption electric power of the electronic devices, while allowing the communication system to operate for an extended period of time (see Fukuda, col. 13, lines 8-17).

3. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Michelet in view of Fukuda as applied to claim 6 above, and further in view of Kosugi et al (US 6,050,717) hereinafter Kosugi.

4. As to claim 14, the combination of Michelet and Fukuda teaches all of the claimed limitation of claim 6, except for said information superimposing section converts the on-screen display information stored in at least one of said first memory and said second memory into indicatable bit map information, and superimposes the indicatable bit map information on the video signal.

However, Kosugi teaches said information superimposing section [37, Fig. 6A, col. 7, lines 57-62] converts the on-screen display information stored in at least one of said first memory [a memory unit, col. 10, lines 56-57] and said second memory [col. 14, lines 18-24] into indicatable bit map information [33r, Fig. 23], and superimposes the indicatable bit map information on the video signal "the warning is superimposed on an image being displayed" [see col. 13, lines 49-53, and col. 13, line 65 through col. 14, lines 24].

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to implement a goggle of the bit map display application, e.g., "the

warning is superimposed on an image being displayed" as taught by Kosugi for the intended use of the display of the combination of Michelet and Fukuda, because the warning display would prevent any harm to the viewer's vision, a warning text is displayed in a white color, a warning message reminding viewers not to use the optical visualizing apparatus (1) for a prolonged time, and a warning message any negative effects on the viewer (see Kosugi, col. 8, lines 52-65).

5. Claims 18, 20 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Michelet in view of Fukuda, and further in view of Rallison et al (US 5,991,085) hereinafter Rallison.

6. As to claims 18 and 20, the combination of Michelet and Fukuda teaches all of the claimed limitation of claim 6, except wherein said display apparatus is adapted to be selectively connected to a plurality of types of host apparatuses, and wherein said display apparatus is adapted to be selectively connected to a plurality of types of host apparatus.

However, Rallison teaches interfacing among a plurality of types of host apparatus comprising host apparatuses (510, 503), a VCR, a videodisk player, a receiver, and a personal computer (see figure 25A) with a plurality of types of display apparatus comprising a HUD 102, a monitor, and a television 515a (see figure 22).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to implement interfacing among the plurality of types of display apparatuses with the plurality of types of host apparatuses as taught by Rallison for the intended use of the combination of Michelet and Fukuda, because a number of

variations and modifications of the invention can be also be used (see Rallison, col. 30, lines 38-40), e.g., the head mounted display can be combined with or coupled to other devices (see Rallison, col. 30, lines 55-57).

7. As to claim 16, Rallison teaches a system according to claim 6, wherein said on-screen display information comprises ASCII text data [see col. 23, lines 10-20].

8. Claim 7, 9, 11 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable by Michelet.

9. As to claim 7, Michelet teaches a display system [Fig. 5] comprising:

a host apparatus [50] having an image output interface [51];

a display apparatus [60] which is operated by receiving at least a video signal [62] from said host apparatus [50];

a communication interface [63] for communicating data between said host apparatus [50] and said display apparatus [60, col. 2, lines 40-46];

wherein said display apparatus [60] comprises a memory for storing on-screen display information [OSD in element 54], and a display-side communication section [54] for transmitting the on-screen display information.

Michelet further teaches said host apparatus [50] comprises a host-side communication section [63] for receiving the on-screen display information transmitted by said display apparatus [a hardware monitoring circuit, not shown in Fig. 5, col. 9, lines 13-14 which receives a direct access to the OSD functions of a display or a screen and which, therefore, can provide enhance feedback information about hardware condition, see Fig. 5, col. 9, lines 20-24], and an information superimposing section for

superimposing the received on-screen display information on the video signal [the superimposition of the OSD text and graphics on the video screen, col. 9, lines 10-18].

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine the embodiment of Fig. 1 and embodiment of Fig. 5 for any electronic circuitry providing other functions than hardware monitoring can take benefit from the teaching of the prevent invention [see col. 9, lines 23-26].

As to claim 9, Michelet teaches wherein said communication interface has a specification for communication between said host-side communication section and said display-side communication section which conforms with a DDC1/DD2B/DD2AB standard prescribed by Video Electronics Standards Association [see col. 6, lines 4-19].

As to claim 11, Michelet teaches wherein said display apparatus includes a mode for operating only said communication interface for communication with said host apparatus [see col. 2, lines 39-46].

10. As to claim 26, Michelet teaches a method for controlling a display system including a host apparatus [50, Fig.5] and a display apparatus [60, Fig. 5], said method comprising:

supplying at least a video signal [62] from the host apparatus [50] to the display apparatus [60] to operate the display apparatus;

transmitting on-screen display information [63] stored in the display apparatus [54] from the display apparatus to the host apparatus [50];

superimposing, at the host apparatus (the graphic card (50 within the computer), the on-screen display information [54] received by the host apparatus [50] onto the

video signal (a video data) that is supplied from the host apparatus [50] to the display apparatus [60, see Fig. 5, col. 9, lines 10-27];

display an image of the on-screen display information on the display apparatus based on the video signal having the on-screen display information superimposed thereon [see Fig. 1, col. 5, lines 29 through col. 6, lines 54].

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine the embodiment of Fig. 1 and embodiment of Fig. 5 for any electronic circuitry providing other functions than hardware monitoring can take benefit from the teaching of the prevent invention [see col. 9, lines 23-26].

11. Claims 15, 27 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Michelet in view of Kosugi.

As to claim 15, Michelet teaches all of the claimed limitation of claim 7, except for said information superimposing section converts the on-screen display information stored in at least one of said first memory and said second memory into indicatable bit map information, and superimposes the indicatable bit map information on the video signal.

However, Kosugi teaches said information superimposing section [37, Fig. 6A, col. 7, lines 57-62] converts the on-screen display information stored in at least one of said first memory [a memory unit, col. 10, lines 56-57] and said second memory [col. 14, lines 18-24] into indicatable bit map information [33r, Fig. 23], and superimposes the indicatable bit map information on the video signal "the warning is superimposed on an

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image being displayed [see col. 13, lines 49-53, and col. 13, line 65 through col. 14, lines 24].

As to claims 27 and 28, Kosugi teaches wherein the display apparatus comprises a microdisplay apparatus that is wearable by a user, and wherein the display apparatus comprises a microdisplay apparatus that is wearable on at least one of a head and face of a user [see Fig. 1, col. 4, lines 30-36].

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to implement a goggle including a bit map display application, e.g., "the warning is superimposed on an image being displayed" as taught by Kosugi for the intended use of the display of the display system of Michelet, because the warning display would prevent any harm to the viewer's vision, a warning text is displayed in a white color, a warning message reminding viewers not to use the optical visualizing apparatus (1) for a prolonged time, and a warning message any negative effects on the viewer (see Kosugi, col. 8, lines 52-65).

12. Claims 13, 17, 19 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Michelet in view of Rallison.

As to claims 19 and 21, Michelet teaches all of the claimed limitation of claim 7, except wherein said display apparatus is adapted to be selectively connected to a plurality of types of host apparatuses, and wherein said display apparatus is adapted to be selectively connected to a plurality of types of host apparatus.

However, Rallison teaches interfacing among a plurality of types of host apparatus comprising host apparatuses (510, 503), a VCR, a videodisk player, a

receiver, and a personal computer (see figure 25A) with a plurality of types of display apparatus comprising a HUD 102, a monitor, and a television 515a (see figure 22).

As to claim 13, Rallison teaches a system according to claim 7, wherein said display apparatus further comprises an indicator lamp for alarm display [Fig. 17A, col. 18, lines 18-24].

As to claim 17, Rallison teaches a system according to claim 7, wherein said on-screen display information comprises ASCII text data [see col. 23, lines 10-20].

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to implement interfacing among the plurality of types of display apparatuses with the plurality of types of host apparatuses as taught by Rallison for the intended use of the display system of Michelet, because a number of variations and modifications of the invention can be also be used (see Rallison, col. 30, lines 38-40), e.g., the head mounted display can be combined with or coupled to other devices (see Rallison, col. 30, lines 55-57).

(10) Response to Argument

Claim 6 recited "a host apparatus having an image input interface; a display apparatus which is operated by supply of at least one of a video signal and power from said host apparatus; a communication interface for communicating data between said host apparatus and said display apparatus; a storing section for storing on-screen display information; an information superimposing section for superimposing said received on-screen display information of the video signal, wherein the host-side communication section transmits the video control having the on-screen display

information superimposed thereon, the display-side communication section receives the transmitted signal, and the display apparatus displays an image of the on-screen display information."

13. Appellant alleges the statement that is different from claim 6 as follows: (1) Michelet discloses on-screen display information is sent from the display to the host, and the host sends only on-screen display commands to the display, (2) the host sends the on-screen display commands via a separate pathway from graphics information, instead of superimposing on-screen display information on a video signal, (3) the on-screen display decoder, which causes the display to display on-screen display information superimposed on the screen, is provided in the display, rather than in the host.

In an apparent oversight, the applicant did not address the rejection and the response put forth in the last Final office action *mailed on 10/4/2006*. The rejection and the response stand and are repeated with respect to claim 6 as follows:

- a. In one preferred embodiment of the invention, the service channel used by the graphics system consists of a bi-directional I²C communication supporting DDC/CI communication between the processor and the display, as well as an On Screen Display communication on a System Management Bus communication between the hardware monitoring circuit and the display, col. 2, lines 40-46.
- b. The service channel, such as an I²C communication link, permits the electronic circuit to have a direct access to the On Screen Display function, for displaying text and/or graphics independently of the operating system, while the

service channel also provides a support for DDC/CI communication for the interaction between the processor and the display, **col. 2, lines 58-64**.

c. Display 21 also comprises "On Screen Display" capabilities which are controlled by an internal microcontroller (not shown) and which causes the display of foreground texts and/or graphics superimposed on the background displayed image which is under control of the graphics signals on bus 20.

Generally speaking, the OSD capabilities are activated when the user presses down the control buttons located on the front panel of the display in order to control and adjust, for instance, the brightness, the contrast, the horizontal or vertical positions of the image which is being displayed, or any other correction useful for perfecting the image, **col. 5, lines 29-39**.

d. A DDC/CI and OSD control decoder 54 receives the I²C serial protocol link on a two-wire bus 63 which carries the DDC/CI commands issued by the processor and the OSD commands generated by an independent hardware monitoring circuit (not shown in FIG. 5). DDC/CI and OSD decoder 54 controls power circuits 55 and 56, and the latter particularly controls the Column drive circuit 57 and Row drive circuit 58 for causing the superimposition of the OSD text and/or graphics on the screen.

e. The invention was particularly described with reference to a hardware monitoring circuit which receives a direct access to the OSD functions of a display or a screen and which, therefore, can provide enhanced feedback information about hardware conditions. However, it will be understood that any

electronic circuitry providing other functions than hardware monitoring can take benefit from the teaching of the present invention, **col. 9, lines 10-27.**

According to (a), (b), (c), (d), and (e), Michelet discloses (i) said On Screen Display information (e.g. the OSD capabilities are activated when the user presses down the control buttons located on the front panel of the display device (60)) is sent from (e.g. said bi-directional I²C communicating (63), or said interacting) between a graphic card (50) within the computer (the host) and said display device (60), (ii) the host (50) sends the on-screen display commands via said bi-directional I²C communication (63) (not via a separate pathway) for superimposing said on-screen display text and/or graphics on the screen (the screen includes the video data which has been displayed on the screen of the display device (60)), (iii) said on-screen display decoder (54), which causes the display device (60) to display on-screen display text and/or graphics on the screen, and which cause to interact between the processor (50) and the display device (60).

Claim 6 further recited "wherein said display apparatus comprises a storing section for storing power consumption data, a display-side communication-section for transmitting said stored power consumption data and said on-screen display information; wherein said host apparatus comprises: a host-side communication section for receiving said power consumption data transmitted from said display apparatus and said on-screen display information; a power control section for entirely performing power control of said display system based on said power consumption data received from said host-side communication section."

14. Appellant argues Fukuda does not teach the further limitation of claim 6. In response to appellant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

In an apparent oversight, the applicant did not address the rejection and the response put forth in the last Final office action *mailed on 10/4/2006*. The rejection and the response stands and are repeated with respect to claim 6 as follows:

Figure 1 of Fukuda discloses wherein said display apparatus [51] comprises a storing section for storing power consumption data [RAM 62c], a display-side communication-section [61] for transmitting said stored power consumption data and said on-screen display information; wherein said host apparatus [3] comprises: a host-side communication section [44] for receiving said power consumption data transmitted from said display apparatus and said on-screen display information; a power control section [controller section 1] for entirely performing power control of said display system based on said power consumption data received from said host-side communication section [see col. 6, lines 6-14].

15. With respect to dependent claim 14, the appellant argues the dependent claims 14 with the only emphasis of the limitation in the independent claim 6. In response, the examiner has addressed ground rejection of the independent claim 6 based on Michelet in view of Fukuda, and further in view of Kosugi which teaches the limitation of claim 14 and thus they overcome the deficiencies of Michelet in view of Fukuda.

16. With respect to dependent claims 16, 18 and 20, the appellant argues the dependent claims 16, 18 and 20 with the only emphasis of the limitation in the independent claim 6. In response, the examiner has addressed ground rejection of the independent claim 6 based on Michelet in view of Fukuda, and further in view of Rallison which teaches the limitation of claims 16, 18 and 20 and thus they overcome the deficiencies of Michelet in view of Fukuda.

17. With respect to independent claim 7, claim 7 shares the same limitations as those of claim 6 and therefore the rationale for rejection will be the same without Fukuda reference.

18. With respect to dependent claims 9 and 11, the appellant argues the dependent claims 9 and 11 with the only emphasis of the limitation in the independent claim 7. In response, the examiner has addressed ground rejection of the independent claim 7 based on Michelet reference. Michelet teaches the limitation of claims 9 and 11.

19. With respect to independent claim 26, claim 26 shares the same limitations as those of claim 6 and therefore the rationale for rejection will be the same without Fukuda reference.

20. With respect to dependent claims 15, 27 and 28, the appellant argues the dependent claims 15, 27 and 28 with the only emphasis of the limitation in the independent claim 7. In response, the examiner has addressed ground rejection of the independent claim 7 based on Michelet in view of Kosugi. Kosugi teaches the limitation of claims 15, 27 and 28 and thus they overcome the deficiencies of Michelet.

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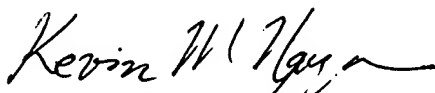
21. With respect to dependent claims 13, 17, 19 and 21, the appellant argues the dependent claims 13, 17, 19 and 21 with the only emphasis of the limitation in the independent claim 7. In response, the examiner has addressed ground rejection of the independent claim 7 based on Michelet in view of Rallison. Rallison teaches the limitation of claims 13, 17, 19 and 21 and thus they overcome the deficiencies of Michelet.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.



For the above reasons, it is believed that the rejections should be sustained.


Respectfully submitted,


Kevin M. Nguyen

Examiner, Art Unit 2629

Conferees:


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